

I CLAIM:

1. A screw-belt advancing mechanism for advancing a screw-retaining belt on a screw driving gun, the screw-retaining belt supporting detachably a plurality of screws thereon, and having a plurality of engaging holes, each of the engaging holes being disposed between adjacent two of the screws on the screw-retaining belt, said screw-belt advancing mechanism comprising:

10 a barrel unit that has a front end and a rear end adapted to be connected to the screw driving gun, that is adapted to receive a driving shaft therein, and that defines a longitudinal direction;

15 a sliding unit connected telescopically to said front end of said barrel unit, movable in said longitudinal direction relative to said barrel unit between extended and retracted positions, and including a nose plate;

20 an urging member for urging said sliding unit to move to said extended position;

a spring-biased positioning member mounted on said sliding unit and adapted to position the screw-retaining belt on said nose plate;

25 a pivot pin mounted on said sliding unit so as to move together therewith in said longitudinal direction, and extending in a transverse direction relative to said longitudinal direction; and

a spring-biased lifting member adapted to engage releasably a selected one of the engaging holes in the screw-retaining belt, pivoted to said pivot pin, and associated with said sliding unit in such a manner that said lifting member is moved in said longitudinal direction toward said rear end of said barrel unit and pivots about said pivot pin in a first direction so as to push the screw-retaining belt to move to a desired position, in which, a selected one of the screws on the screw-retaining belt is aligned with the driving shaft, when said sliding unit slides from said extended position to said retracted position against urging action of said urging member, and that said lifting member is moved in said longitudinal direction away from said rear end of said barrel unit and pivots about said pivot pin in a second direction opposite to said first direction to engage releasably an adjacent one of the engaging holes in the screw-retaining belt which is disposed adjacent to the selected one of the engaging holes in the screw-retaining belt when said sliding unit slides from said retracted position to said extended position by virtue of the urging action of said urging member.

2. The screw-belt advancing mechanism as defined in Claim 1, wherein said barrel unit includes a casing formed with a pair of opposite guiding slots, each

of which includes a straight section extending in said longitudinal direction and having a front end, and a sloped section extending inclinedly and downwardly from said front end of said straight section and having a front end, said lifting member having a pivot end pivoted to said pivot pin, a driving end opposite to said pivot end and engaging releasably the selected one of the engaging holes in the screw-retaining belt, and an intermediate portion extending between said driving and pivot ends and formed with a mounting hole, said sliding unit including a lifting lever parallel to said pivot pin and extending through said mounting hole in said lifting member and said guiding slots in said casing so as to permit pivoting movement of said lifting member about said pivot pin during sliding movement of said lifting lever between said front end of said sloped section and said front end of said straight section when said sliding unit is slid between said extended position and said retracted position.

3. The screw-belt advancing mechanism as defined in Claim 2, wherein said sliding unit further includes a mounting seat that is disposed slidably in said casing, that has a front plate projecting frontwardly and outwardly from said front end of said barrel unit to define said nose plate, and two side plates that extend rearwardly from two opposite ends

of said nose plate into said casing to define a receiving space therebetween for receiving said lifting member therein and that are formed with openings respectively registered with said mounting hole in said lifting member and permitting extension of said lifting lever therethrough, said pivot end of said lifting member being pivoted to said side plates of said mounting seat through said pivot pin which is disposed rearwardly of said openings in said side plates of said mounting seat.

4. The screw-belt advancing mechanism as defined in Claim 3, wherein said mounting seat is formed with a spring-abutting plate that is disposed rearwardly of said nose plate, that interconnects said side plates of said mounting seat, and that abuts against one end of said urging member.

5. The screw-belt advancing mechanism as defined in Claim 4, further comprising a second urging member having one end fixed to said side plates of said mounting seat and an opposite end connected to said pivot end of said lifting member so as to constantly urge said lifting member to move toward said nose plate of said sliding unit.